

# ZB4BP3

green projecting pushbutton head Ø22 spring  
return unmarked



## Main

|                                 |                                      |
|---------------------------------|--------------------------------------|
| Range of product                | Harmony XB4                          |
| Product or component type       | Head for non-illuminated push-button |
| Device short name               | ZB4                                  |
| Product compatibility           | Not compatible with legend holder    |
| Bezel material                  | Chromium plated metal                |
| Mounting diameter               | 22 mm                                |
| Sale per indivisible quantity   | 1                                    |
| Shape of signaling unit head    | Round                                |
| Type of operator                | Spring return                        |
| Operator profile                | Green projecting unmarked            |
| Operator additional information | Clear boot                           |

## Complementary

|                             |  |
|-----------------------------|--|
| CAD overall width           | 30 mm  |
| CAD overall height          | 30 mm  |
| CAD overall depth           | 35 mm  |
| Mechanical durability       | 10000000 cycles  |
| Electrical composition code | C1 for <= 9 contacts using single blocks in front mounting<br>C2 for <= 9 contacts using single and double blocks in front mounting<br>C11 for <= 3 contacts using single blocks in front mounting<br>C15 for 1 contacts using single blocks in front mounting |

## Environment

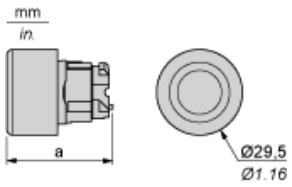
|                                       |                                 |
|---------------------------------------|---------------------------------|
| Protective treatment                  | TH                              |
| Ambient air temperature for storage   | -40...70 °C                     |
| Ambient air temperature for operation | -40...70 °C                     |
| Overvoltage category                  | Class I conforming to IEC 60536 |
| IP degree of protection               | IP67                            |

|                           |  |
|---------------------------|--|
|                           | IP66 conforming to IEC 60529   |
| NEMA degree of protection | NEMA 13<br>NEMA 4X   |
| IK degree of protection   | IK06 conforming to IEC 50102   |
| Standards                 | CSA C22.2 No 14<br>EN/IEC 60947-5-4<br>UL 508<br>EN/IEC 60947-1<br>JIS C 4520<br>EN/IEC 60947-5-1<br>EN/IEC 60947-5-5  |
| Product certifications    | CSA<br>LROS (Lloyds register of shipping)<br>RINA<br>DNV<br>BV<br>UL listed<br>GL  |
| Vibration resistance      | 5 gn (f = 2...500 Hz) conforming to IEC 60068-2-6  |
| Shock resistance          | 30 gn (duration = 18 ms) for half sine wave acceleration conforming to IEC 60068-2-27<br>50 gn (duration = 11 ms) for half sine wave acceleration conforming to IEC 60068-2-27 |

### Contractual warranty

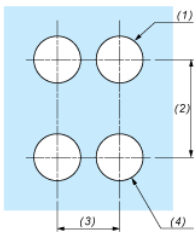
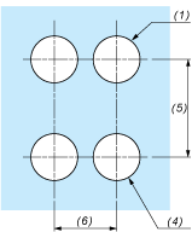
|                 |           |
|-----------------|-----------|
| Warranty period | 18 months |
|-----------------|-----------|

Dimensions



|          | a in mm | a in in. |
|----------|---------|----------|
| ZB4BP••  | 36.5    | 1.44     |
| ZB4BP•S  | 33      | 1.30     |
| ZB4BP•83 | 32      | 1.26     |
| ZB4BP•   | 35      | 1.38     |

## Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

| Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board   | Connection by Faston Connectors   |
|---|---|
|    |  |
| <p>(1) Diameter on finished panel or support<br/>           (2) 40 mm min. / 1.57 in. min.<br/>           (3) 30 mm min. / 1.18 in. min.<br/>           (4) <math>\text{Ø } 22.5 \text{ mm} / 0.89 \text{ in. recommended } (\text{Ø } 22.3 \text{ mm }_0^{+0.4} / 0.88 \text{ in. }_0^{+0.016})</math><br/>           (5) 45 mm min. / 1.78 in. min.<br/>           (6) 32 mm min. / 1.26 in. min.</p> |   |



Dimensions in in.



A: 1.18 in. min.  
B: 1.57 in. min.

### General Tolerances of the Panel and Printed Circuit Board

The cumulative tolerance must not exceed 0.3 mm / 0.012 in:  $T1 + T2 = 0.3 \text{ mm max.}$

### Installation Precautions

- Minimum thickness of circuit board: 1.6 mm / 0.06 in.
- Cut-out diameter: 22.4 mm  $\pm$  0.1 / 0.88 in.  $\pm$  0.004
- Orientation of body/fixing collar ZB4 BZ009:  $\pm 2^\circ 30'$  (excluding cut-outs marked a and b).
- Tightening torque of screws ZBZ 006: 0.6 N.m (5.3 lbf.in) max.
- Allow for one ZB4 BZ079 fixing collar/pillar and its fixing screws:
  - every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
  - with each selector switch head (ZB4 BD\*, ZB4 BJ\*, ZB4 BG\*).

The fixing centers marked a and b are diagonally opposed and must align with those marked 4 and 5.



- (1) Panel  
(2) Printed circuit board

## Mounting of Adapter (Socket) ZBZ 01•

- 1 2 elongated holes for ZBZ 006 screw access
- 2 1 hole  $\varnothing$  2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 for centring adapter ZBZ 01•
- 3 8  $\times$   $\varnothing$  1.2 mm / 0.05 in. holes
- 4 1 hole  $\varnothing$  2.9 mm  $\pm$  0.05 / 0.11 in.  $\pm$  0.002, for aligning the printed circuit board (with cut-out marked a)
- 5 1 elongated hole for aligning the printed circuit board (with cut-out marked b)
- 6 4 holes  $\varnothing$  2.4 mm / 0.09 in. for clipping in adapter ZBZ 01•

Dimensions An + 18.1 relate to the  $\varnothing$  2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 holes for centring adapter ZBZ 01•.

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Electrical Composition Corresponding to Code C1

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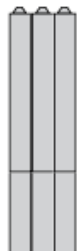




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Electrical Composition Corresponding to Code C2

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Electrical Composition Corresponding to Codes C9, C11, SF1 and SR1

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Electrical Composition Corresponding to Code C15

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1 N/O



1 N/C



1 N/O + N/C or 1 N/O + N/O or 1 N/C + N/C



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Legend

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Single contact



Double contact



Light block



Possible location

